

## **MUREP Small Business Technology Transfer (M-STTR) Planning Grants**

**Title:** Development of Enabling Technologies for a Novel All-Rotating UAV

**Institution:** California State University, Long Beach

**City/State:** Long Beach, CA

**PI:** Praveen Shankar, Ph.D.

**FY:** 2022

### **SUMMARY:**

The overall goal of the M-STTR is to establish a robust collaboration between California State University, Long Beach (Minority Serving Institution, MSI) and Aeroseed, LLC (Small Business Concern, SBC) to prepare a comprehensive proposal for the 2023 NASA STTR solicitation to fund the development of key enabling technologies that will allow for the commercialization of the novel Aeroseed UAV. The specific objectives for this effort include:

1. Refining the design of the de-spun platform developed at California State University, Long Beach (*Key Enabling Technology – 1*)
2. Evaluating the potential for using a suite of magnetic sensors to determine the attitude of a all-rotating UAV in real time (*Key Enabling Technology – 2*)
3. Evaluating the requirements for integrating the two enabling technologies with the Aeroseed vehicle.
4. Preparing a proposal in response to the 2023 NASA STTR Phase 1 Solicitation